Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended) A method of correcting data representing abrupt intensity gradient within a predetermined set of sampled areas, comprising the acts of:

a) determining a continuous direction of the abrupt intensity gradient of RGB data between a horizontal direction and a vertical direction;

b) ~~selecting~~ adjusting a ~~set~~ RGB conversion matrix of orientation-sensitive correction coefficients based upon the direction ~~from predetermined sets of the correction coefficients~~; and

c) correcting the data based upon the ~~selected set~~adjusted RGB conversion matrix of the correction coefficients to perform a sum of products operation on the RGB data.

2 (original) The method of correcting data according to claim 1 wherein the abrupt intensity gradient is stripes.

3 (original) The method of correcting data according to claim 2 wherein the direction of the stripes is horizontal.

4 (original) The method of correcting data according to claim 2 wherein the direction of the stripes is vertical.

5 (original) The method of correcting data according to claim 1 wherein the sampled areas are covered by a planar array of color area image sensors.

6 (original) The method of correcting data according to claim 1 wherein the color area image sensors generate primary colors.

7 (original) The method of correcting data according to claim 6 wherein for each of the primary colors, the set of correction coefficients is selected based upon the direction of the abrupt intensity gradient.

8 (original) The method of correcting data according to claim 7 wherein the direction includes a vertical type and a horizontal type.

9 (original) The method of correcting data according to claim 8 wherein the set of correction coefficients is selected additionally based upon a pattern of the planar array of the color area image sensors.

10 (original) The method of correcting data according to claim 7 wherein the direction includes a vertical type, a horizontal type and an all-other type.

11 (cancel)

12 (currently amended) A system for correcting data representing abrupt intensity gradient within a predetermined set of sampled areas, comprising:

a direction determination unit for determining a continuous direction of the abrupt intensity gradient in RGB data between a horizon direction and a vertical direction;

a coefficient determination unit connected to the direction determination unit for ~~selecting~~ adjusting a ~~set~~ RGB conversion matrix of orientation-sensitive correction coefficients from predetermined sets of the correction coefficients based upon the direction; and

a data correction unit connected to the coefficient determination unit for correcting the data based upon the ~~selected set~~adjusted RGB conversion matrix of the correction coefficients to perform a sum of product operation on the RGB data.

13 (original) The system for correcting data according to claim 12 wherein the direction determination unit detects the direction of the abrupt intensity gradient including vertical stripes and horizontal stripes.

14 (original) The system for correcting data according to claim 12 further includes a planar array of color area image sensors for generating signals representing primary colors in the sampled areas.

15 (original) The system for correcting data according to claim 14 wherein the coefficient determination unit selects the set of correction coefficients based upon the direction of the abrupt intensity gradient for each of the primary colors.

16 (original) The system for correcting data according to claim 15 wherein the direction determination unit determines a vertical type and a horizontal type.

17 (original) The system for correcting data according to claim 16 wherein the coefficient determination unit selects the set of correction coefficients additionally based upon a pattern of the planar array of the color area image sensors.

18 (original) The system for correcting data according to claim 16 wherein the direction determination unit determines a vertical type, a horizontal type and an all-other type.

19 (cancel)

20 (currently amended) A medium containing computer instructions performing a task of correcting data representing abrupt intensity gradient within a predetermined set of sampled areas, comprising the acts of:

determining a continuous direction of the abrupt intensity gradient including stripes between a horizontal direction and a vertical direction, the sampled areas being covered by a planar array of color area image sensors, the color area image sensors generating primary colors;

~~determining~~ adjusting a ~~set~~ RGB conversion matrix orientation-sensitive of correction coefficients based upon the direction; and

correcting the data ~~using the coefficients~~based upon the adjusted RGB conversion matrix of the correction coefficients to perform a sum of products operation on the RGB data.